

PATENT CLAIMS

1. A method for preparing an artificial patination material to substrates preferably made of copper or copper alloys, in which method at least one copper salt is used as a raw material, which is precipitated with an alkali metal hydroxide, the formed sludge is filtered for forming a precipitate, **characterized** in that the reaction between the raw material and the alkali metal hydroxide is stopped with water, the precipitate is dispersed with powerful mixing and an addition of a dispersing agent, and in addition, both an oxidative agent is used and carbon as an agent for catalysing natural patina forming and at least one stable metal compound as a colour pigment for achieving desired colour and/or colour tinge.  
5
2. A method according to claim 1, **characterized** in that at least one of the group including copper sulfate, copper nitrate, copper chloride, copper carbonate ore their mixture is used as the raw material of the artificial patination material.  
10
3. A method according to claim 1 or 2, **characterized** in that copper sulfate is used as the raw material of the artificial patination material.  
15
4. A method according to any one of claims 1 to 3, **characterized** in that manganese dioxide is used as an oxidative agent.  
20
5. A method according to any one of claims 1 to 4, **characterized** in that an iron compound is used as a raw material of the artificial patination material.  
25
6. A method according to any one of claims 1 to 5, **characterized** in that an iron compound is used as an oxidative agent.  
30

7. A method according to any one of claims 1 to 6, characterized in that an inorganic metal compound is used as colour pigment.
- 5        8. A method according to any one of claims 1 to 7, characterized in that an iron compound is used as a colour pigment.
- 10        9. A method according to any one of claims 1 to 7, characterized in that iron and aluminium compound, iron, manganese and aluminium compound or iron, manganese, silicon and aluminium compound is used as a colour pigment.
- 15        10. A method according to any one of claims 1 to claim 7, characterized in that manganese compound is used as a colour pigment.
- 20        11. A method according to any one of claims 1 to claim 7, characterized in that copper compound is used as a colour pigment.
12. A method according to claim 11, characterized in that copper carbonate compound, copper silicate- copper carbonate compound or calcium copper silicate compound is used as a colour pigment.
- 25        13. A method according to any one of claims 1 to claim 7, characterized in that chromium(III) compound is used as a colour pigment.
14. A method according to any one of claims 1 to 7, characterized in that magnesium- aluminium- and potassium compound is used as a colour pigment.
- 30        15. A method according to any one of claims 1 to claim 7, characterized in that coal is used as a colour pigment.

16. A method according to any one of claims 1 to claim 15, characterized in that the amount of the colour pigment in the patination material dry matter is at most 5 %.

5 17. A method according to any one of claims 1 to 16, characterized in that an alkyd-based compound is used as a binder and the binder is added to the patination material during its preparation.

10 18. A method according to claim 17, characterized in that the amount of the binder is at highest 10% of the patination material dry matter.

15 19. A method according to any one of claims 1 to 18, characterized in that the amount of dry matter in the patination material is between 15 – 50%.

20 20. An artificial patination material to substrates preferably made of copper or copper alloys wherein at least one copper salt is used as a raw material, precipitated with an alkali metal hydroxide and the formed sludge filtered for forming a precipitate, characterized in that the reaction between the raw material and the alkali metal hydroxide was stopped with water, the precipitate dispersed with powerful mixing and an addition of a dispersing agent, and the paste contains an oxidative agent and carbon for catalysing natural patina forming and at least one stable metal compound is used as a colour pigment for achieving desired colour and/or colour tinge.

25 21. A patination material according to claim 20, characterized in that an alkyd-based compound is used as a binder.

30 22. A patination material according to claims 20 or 21, characterized in that at least one of the group including copper sulfate, copper nitrate,

copper chloride, copper carbonate ore their mixture is the raw material of the patination material.

- 5            23. A patination material according to any one of claims 20 to 22,  
              characterized in that copper sulfate is the raw material of the  
              patination material.

10            24. A patination material according to any one of claims 20 to 23,  
              characterized in that a part of the patination material is posnjakite  
              ( $Cu_4SO_4(OH)_6 \cdot 2H_2O$ ) with a grain size between 0,2 – 80  $\mu m$ .

15            25. A patination material according any one of claims 20 to 24,  
              characterized in that a grain size of the patination material particles is  
              between 0,2 – 100  $\mu m$ .

20            26. A patination material according any one of claims 20 to 25,  
              characterized in that the amount of dry matter in the patination  
              material is between 15 – 50%.

25            27. A patination material according to any one of claims 20 to 26,  
              characterized in that the binder covers only partially the patination  
              material particles.

30            28. A patination material according to any one of claims 20 to 27,  
              characterized in that inorganic metal compound is used as a colour  
              pigment.

              29. A patination material according to any one of claims 20 to 27,  
              characterized in that iron compound is used as a colour pigment.

              30. A patination material according to any one of claims 20 to 27,  
              characterized in that iron and aluminium compound, iron, manganese

and aluminium compound or iron, manganese, silicon and aluminium compound is used as a colour pigment.

39. A patination material according to any one of claims 20 to 38,  
**characterized** in that the paste is storable in room temperature.

5       40. A patination material according to any one of claims 20 to 39,  
**characterized** in that the amount of the colour pigment is at most 5%  
of the patination material dry matter.